



# NEWSLETTER #1

## Session 2 Update

What a great three days of science and literacy. Thanks to everyone who came out. Positive feedback from the exit card comments included the graphic jammin', demo practice, Gizmos, vocabulary strategies and learning more about collaboration. As a follow-up to the day, we are asking you to send us your draft question for the collaborative inquiry you plan to undertake in March and April of next year. This is the one task for you to complete before the holiday break.

## Gizmos

A highlight of the sessions was having time to explore Gizmos. Gizmos is a provincially licensed program that contains over 450 online simulations for Math and Science. Many of the science simulations can be nicely combined with activities in the Pearson text and the Smarter Science Framework. Sciencesource.ca has all the relevant Gizmos aligned to the appropriate pages within the Investigating Science and Technology resource. Next time we will investigate a different Gizmo to carry out our own virtual investigation. If you need any additional information regarding login help, please contact us.

### TO TRY

Join our Gizmo class and try a Gizmo with your class. We've added the food chain Gizmo as a way to model the inquiry process to investigate how a food chain can change over time. Vary the number of hawks, snakes, rabbits or grass plants and analyze the results. Our class code is: **FR6EGDCRLM**

## Smarter Science: Steps 5-10

By now you are becoming comfortable with the first four steps of the Smarter Science framework, namely taking observations and wonderings and creating a testable question. Next session we will investigate steps 5 – 10. These steps include writing an experimental procedure, collecting, analyzing and representing data and writing a conclusion. These steps will help you as you work through your own inquiry and continue to develop the inquiry skills of your students.

### TO REVIEW

Review steps 5 – 10 from the Smarter Science handout.

## Vocabulary Strategies

The vocabulary strategies we explored in the session are easy to implement in any content area. As you introduce new text in class have students identify and sort new or unfamiliar words using the vocabulary sorting mat. Challenge students to track the number of encounters it takes before they feel comfortable moving each word along on the sorting mat. Share the research we discovered about the number of encounters students need with a word before they comprehend it. It will be interesting to hear what students find out and if their experiences are in line with the research.



*Balancing 14 nails on 1 nail!*

## TO REVIEW

Review the key words on the expectations correlations page in the teacher's manual of the science unit you are currently teaching to find authentic literacy opportunities you can support in your literacy time.

## Frayer Model & Graffiti Strategy

Many people commented on how well the frayer model and graffiti strategy worked when adapted to the environmental issues photographs as a "Minds On" activity for the Environmental Choices and Interactions in the Environment units. It was a perfect opportunity to push thinking further and gather valuable data on students' prior knowledge. One participant has already shared how this combination of strategies is being used this week in their class to look at important figures in the War of 1812.

## New Demo

The six demos from this session are in the wiki and over the next couple of weeks descriptions of each demo will be added to the current information.

Another fun activity is to try and hang a hammer off a ruler using only a rubber band. So that's a hammer, 30 cm ruler and rubber band.

Check out the wiki at [dpcdsb-ssc.wikispaces.com](http://dpcdsb-ssc.wikispaces.com) for an explanation and thanks to moillusions.com for the image. This demo is similar to the 14 nails and is a nice fit for grade 7 Structures and Forces.

## TO HAVE SOME FUN

Try the ruler and hammer demo



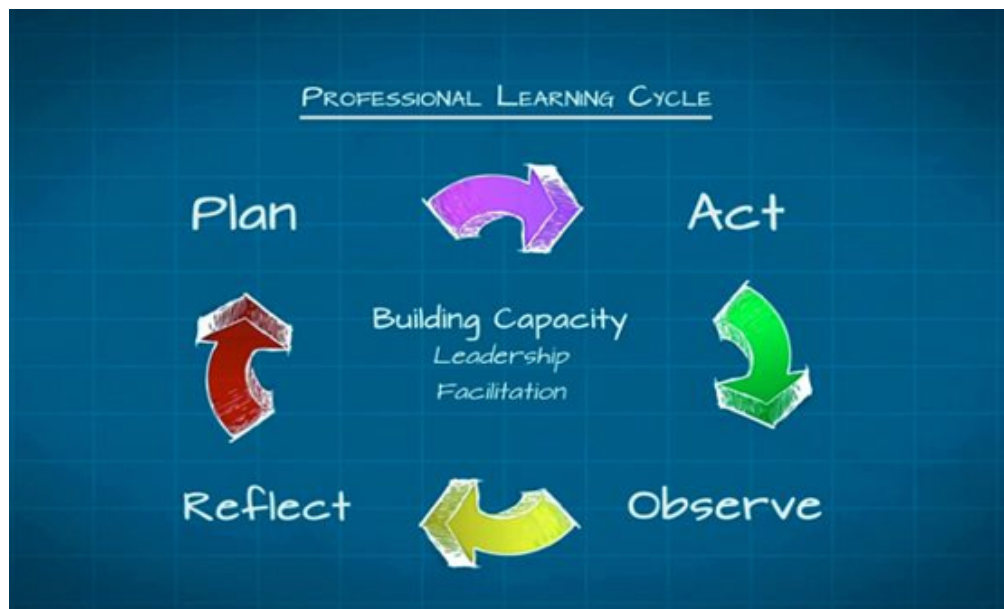
# Collaborative Inquiry Update

Just a reminder, one of the learning goals for year 2 participants is to complete a collaborative inquiry within your classroom this year. This is an exciting opportunity to take an aspect of your practice and spend some time looking more deeply at how it's working in your class. The goal is to gain a better understanding of what the students are learning during this investigation and use that information to inform your own professional practice.



Two key tools for this investigation are the Collaborative Inquiry framework below and the attached Collaborative Inquiry Planning Sheet.

## 1. The Collaborative Inquiry Framework



The framework shows our process starting with observations, then reflections followed by a plan and action before we return to observations and reflections again at the end of the cycle to examine and celebrate student and teacher learning. To date we have had time to observe, reflect and now we are starting to plan.

## 2. Collaborative Inquiry Planning Sheet

*See attached for full version*

# Writing Clear, Measureable Questions

Having a clear, measureable question is the next step in the planning process. A reminder there are two general formats you can use for developing this question.

**If you decide to take a literacy focus, you can use the following format:**

How will using \_\_\_\_\_ affect my students' ability to (think / express / reflect) in \_\_\_\_\_?

## *Examples*

How will using oral language strategies to scaffold academic conversations affect my students' ability to express themselves in discussions in science class?

How will using strategies to build vocabulary skills & knowledge improve my students' ability to express themselves in the written summative task for the Environmental Choices and Interactions in the Environment units in Language and Science?

How will using foldables (or graphic organizers) for note-making improve my students' ability to think and express themselves in written tasks and end of unit tests during XXX units?

**If you decide to take a scientific inquiry focus, you can use the following format:**

If I change \_\_\_\_\_ , then \_\_\_\_\_ .

## *Examples*

If we use strategies to activate prior/background knowledge (minds on activities) during science class then our students' ability to write good observations and wonderings will improve.

If we allow students to investigate their own testable question then students' engagement and achievement in science class will improve.

## Final Thoughts

We noticed that many of the first draft of questions were too general. When we review your submitted question over the holidays we may come back to you with suggestions on how to further "fine tune" your question.

As we move forward into the next steps of the process, please don't hesitate to contact us if you have questions or check out our collaborative inquiry page on the literacy or science wikis.

As always, thanks for your support and enthusiasm. Have a good holiday.

*Sandra and Lionel*